Childbed ... Nursing

... JEWETT

MANUAL

OF

CHILDBED NURSING.

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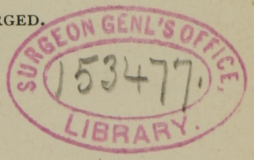
FOURTH EDITION.

REVISED AND ENLARGED.



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PREFACE TO THE FOURTH EDITION.

THIS manual was originally prepared for the benefit of the Training School for Nurses at the Long Island College Hospital. It was subsequently rewritten and adapted to general use. In this edition the entire contents have been revised and much new matter has been added. While the new topics do not all fall strictly within the limitation of the title, it is believed they will prove acceptable additions.

The object has not been to furnish a text-book on the subject in hand, but rather to aid the nurse in remembering the more important practical teachings of the hospital training. The plan of statement in condensed paragraphs has been adopted with a view to that end.

The author ventures the hope that the book, in its present form, may be found of service not only to professional nurses but to mothers as well, and to all interested in obstetric nursing.

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MANUAL

OF

CHILDBED NURSING.

PREGNANCY.

Medical Supervision—The pregnant woman should place herself under the direction of her physician from the first months of pregnancy; should consult him frequently during the later months.

Rules of Health—Most essential are:

Daily open-air exercise for one or two hours;

Avoidance of exhaustion and of violent muscular exertion;

Regularity of meals;

Regulation of the kind and quantity of food, as the physician may direct;

Proper action of the bowels once daily;

Eight hours of sleep daily;

Pure air at all times;

A sponge bath twice weekly in winter, once daily in the summer months; the bath should

be taken in a warm room, and with plenty of friction to secure complete reaction;

A daily cleansing of the external genitalia, especially in the later weeks of pregnancy; in case of irritating vaginal secretions, a vaginal douche once daily, of a quart of boiled water at the temperature of the body, containing a tablespoonful of boric acid;

Clothing to suit climatic changes;

Light flannel underwear at all seasons;

Avoidance of tight clothing, particularly about the breasts and abdomen;

Freedom as far as possible from much mental excitement and from depressing emotions.

Care of the Nipples—During the last month the nipples should be cleansed daily with a borax solution—tablespoonful to a pint of water. They may be anointed with fresh cacao butter after cleansing, and if small or sunken should be gently drawn with the thumb and fingers.

Examination of the Urine—Once a week during the last month or two, a sample of the urine should be sent to the doctor for examination. Note amount of daily excretion.

THE LABOR.

To Predict the Date of Labor—Add seven days to the date when the last menstruation began, and count forward nine months. The date thus found is usually accurate within a week.

Preparation for Labor—For the lying-in-chamber, select, if possible, a large, well-ventilated room with a southern exposure, remote from the water-closet, and having no defective waste-pipes nor other exposure to house drainage.

Cleanliness of the room and its contents, entire freedom from decomposing animal or vegetable matter and from the poisons of contagious diseases are imperative.

Especially dangerous is the contagion of childbed fever, suppurating wounds, erysipelas, diphtheria or scarlet fever.

Much drapery is insanitary; it catches dust and disease germs.

Have Ready:

A dozen clean sheets;

A dozen towels recently laundered;

A dozen pieces of fresh-boiled cheese-cloth, or butter-cloth, about eighteen inches square, for wash-cloths;

Two or three pieces of straight unbleached muslin for binders, a yard and a quarter long by half a yard wide;

A labor pad and two dozen lochial guards. (See pp. 5 and 11);

Two surgically clean rubber sheets, large enough to reach across the bed; table oilcloth may be substituted for rubber where economy requires;

A rug, rubber sheet or oilcloth, to protect the carpet beside the bed;

Scissors;

Two dozen safety-pins of medium size;

A Davidson or a fountain syringe;

A clean vessel to receive the placenta;

A bedpan of earthenware or agate ironware;

Plenty of hot and of cold water;

A half-pint of brandy or whiskey;

Two or three clean hand-basins of agate ironware or earthenware;

A slop jar;

Two new hand-brushes;

One hundred bichlorid or biniodid of mercury tablets;

Two ounces of glycerin as a lubricant for the doctor's hands; sterilize by heating to 212° F. or more for ten minutes;

Vaselin, or sweet-oil, for anointing the child;

A yard of strong linen bobbin, one-sixteenth-inch wide, for tying the navel-cord;

A woolen blanket for wrapping the child;

A child's bath-tub, and a bath thermometer;

Castile soap of best quality;

A package of borated cotton;

The child's clothing.

Preparation of the Bed—Cover the mattress with a muslin sheet, and that with a rubber sheet.

Spread a clean muslin sheet over the rubber and pin fast to the mattress.

Spread over that a second rubber covered with a muslin sheet.

Place two or three fresh-laundered sheets, twice folded, in position to receive and absorb the discharges.

A thick pad of prepared jute, or similar absorbent material, covered with fresh-boiled cheese-cloth, may be used as a labor pad instead of the folded sheets. It should be about three feet square and three inches thick.

A separate cot dressed as above described may be used for the confinement instead of the bed, the patient being transferred to the bed after delivery.

It is an important precaution to sterilize the muslin and the rubber sheets, and the labor pad,

by steaming them for ten minutes immediately before dressing the bed or cot.

Hygiene of the Lying-in Room—The most scrupulous cleanliness is imperative.

Pure air is at all times indispensable.

Ventilation to be effective must be constant.

An open fire, when practicable, is a good ventilator.

Sunlight is an important sanitary agent.

The temperature of the room may be from 68° to 70° F.; five or six degrees lower at night.

Signs of Beginning Labor—1. *Pains in the lower abdomen and back*, recurring at regular intervals, at first about once a half-hour. The uterus hardens during the pains. As the labor advances the pains strengthen, and the intervals shorten to one or two minutes, or even to the fraction of a minute, toward the close of the labor.

2. *The "show,"* a bloody discharge from the vagina.

3. *Evacuations of the bladder and bowels* more frequently than usual.

Stages of Labor—*First Stage or Stage of Dilatation*—ending with the full dilatation of the neck of the womb.

Second Stage or Stage of Expulsion—ending with the birth of the child.

Third Stage or Placental Stage—ending with the expulsion of the placenta and the persistent contraction of the uterus.

DUTIES OF THE NURSE DURING THE LABOR

First Stage—The patient should have an entire change of linen, and, if possible, a full bath with careful cleansing of the external genitals, at the beginning of labor.

A vulvar compress wet with a saturated boric acid solution may be worn during the first stage of labor.

Make no vaginal examinations unless ordered.

Notify the doctor when the labor begins or be guided by instructions previously obtained.

Messages to the doctor are best put in writing, and should give stage of progress and full particulars.

The patient may be dressed in her night clothing and a loose wrapper, and may have the liberty of the room.

Tell her not to "bear down" during the pains of this stage.

The bladder should be frequently evacuated.

Make it a rule to empty the lower bowel by an enema of warm water once or more during the first stage.

A *hot* rectal injection stimulates the pains

and therefore may or may not be proper in a given case.

Moving about the room or even the bed has a like effect.

Give such simple food and drink as the patient may require.

The nurse may do much to encourage and to reassure the patient; she should beware of alarming her with tales of her experiences in other cases.

For the Doctor's Examination—Have ready for the doctor's use soap, hot water, two agate ironware or earthenware hand-basins, two hand-brushes and one of the mercurial solutions (pp. 22, 23) for sterilizing the hands.

Place the patient on her back in bed, at the right side, with the clothing adjusted for the abdominal and the pelvic examinations.

Before the doctor's internal examination the nurse should prepare her hands as directed on pp. 24, 25, and carefully cleanse the external genitals of the patient and their surrounding surfaces with soap and water, rinse off the soapy water and bathe the parts with the biniodid or bichlorid of mercury solution (pp. 22, 23).

Second Stage—The patient should keep the bed from the time the labor approaches the second stage, generally after the escape of the

waters or after the pains become severe; she should not, as a rule, be permitted to leave the bed during the second stage, not even for evacuations of the bladder or the bowels.

She should be dressed for the bed with her clothing tucked under the arms and pinned and with a surgically clean folded sheet fastened about the waist in the manner of a skirt.

In hospital practice the lower extremities may be covered with a pair of muslin leggins, made aseptic by steaming.

Firm pressure against the lower part of the back during the pains usually gives relief.

The patient may be allowed to pull upon the hand of a bystander during the pains, or upon a sheet tied to the foot of the bed. This, however, increases the expelling power and should be omitted in over-rapid labor.

GIVING CHLOROFORM—Have the head low and clothing loose. Remove false teeth. Smear the skin about the mouth and nose with vaselin or glycerin, to prevent "burning" by the chloroform.

Spread a thin towel over the patient's face; lift it by the middle six or seven inches so as to form a large air-chamber about the face.

Drop the chloroform upon the upper surface of the towel, opposite the mouth and nose, one

drop with each breath. Ask the patient to breathe rapidly at the beginning of the pain. Five to ten drops are usually enough for an ordinary pain.

Give it only during the pain, the inhalation beginning promptly with the pain. It may usually be pushed to unconsciousness during the passage of the head over the perineum, by continuous inhalation.

For Version or Forceps Operation—Place the patient directly across the bed, upon her back, with the hips close to the edge of the bed and the knees drawn far up and well apart.

Each lower extremity may be covered with a separate sheet or blanket or with the leggins specially made for the purpose.

One assistant is usually required at each of the knees to hold them in the position described.

Third Stage—The nurse may be required to "hold the fundus," while the doctor is otherwise engaged. This consists in "watching" the uterus by laying the hand lightly upon the abdominal wall, over the upper surface of the uterus, to know whether it remains properly contracted. Moving the abdominal walls in a circular direction over the surface of the uterus, or firmly grasping the womb may be needed to promote contractions.

Keep the placenta for the doctor's examination;

afterward destroy by burning in the range or furnace fire.

At the close of the third stage the patient's body should be cleansed of blood and discharges by bathing with an antiseptic—preferably one of the mercurial solutions (pp. 22 and 23).

Sea sponges should never be used for bathing the genitals, but fresh-boiled cloths instead, which have lain for several minutes in the antiseptic solution immediately before use. The nurse should re-sterilize her hands before cleansing the genitals.

The upper rubber sheet should be removed and all soiled bedding and soiled clothing replaced with clean.

The remaining rubber sheet is not usually needed after four or five days.

A draw-sheet, consisting of an aseptic muslin sheet twice folded, may be placed under the patient's hips. It should be changed as often as it becomes in the least soiled.

VULVAR DRESSING—Cover the external genitals, after cleansing, with a folded napkin, the lochial guard, which has previously been steamed, or boiled and dried. Hold in place with a T bandage.

A good substitute for the napkin as a vulvar dressing is a lochial guard made of jute or other

absorbent material loosely packed and enveloped in cheese-cloth. The guards should be three inches thick, four inches wide, ten inches long, and provided with a ten-inch tail piece at each end for fastening to the abdominal binder. Boil for ten minutes and dry them. Burn after using.

THE BINDER should reach from the breast-bone to a point just below the hips. Pin with safety-pins and moderately tight for the first twelve hours, thereafter less firmly.

The binder serves no purpose except to promote the comfort of the patient by supporting the lax abdominal walls and perhaps to favor the contraction of the uterus. Too much constriction by impairing the tonicity of the muscles may tend to prevent rather than to favor the return of the waist to its proper shape.

THE PUERPERAL PERIOD.

POINTS TO BE NOTED BY THE NURSE.

GENERAL CONDITION of the patient, appetite, color and expression of the face, appearance of the tongue, pains, chills.

PULSE—The normal pulse-rate of the puerperal woman is lower than her ordinary pulse.

TEMPERATURE—Physiological upper limit first four days 99½°, thereafter 99° F.

EVACUATIONS of the bladder and bowels.

BREASTS, distended, hard, painful, nipples well formed, tender, or cracked.

ABDOMEN, bloated, tender on pressure.

UTERUS—The uterine contractions should be firm, at first intermittent, after about an hour nearly persistent. Tenderness on pressure over the uterus should diminish daily and should disappear after three or four days.

Fundus at the close of labor nearly midway between the navel and the pubes, a few hours later at the navel, tenth day at the pubes. Note that the uterus may be pushed up bodily by a full bladder or rectum.

LOCHIA—The normal flow is more or less bloody for about four days, paler and thinner

for three or four, then creamy; it gradually diminishes in quantity from the close of labor. Total amount in the first two weeks about $3\frac{1}{4}$ lbs. Duration two to four weeks. It should never have a fetid odor.

Watch closely the amount of flow, especially during the first two or three hours after labor.

DANGER SIGNALS—A pulse of 100 or more during the first few hours after delivery may be a forewarning of hemorrhage.

A soft, flabby condition of the uterus after labor is liable to be attended with dangerous bleeding.

A chill with high temperature is evidence of serious illness. A chill without rise of temperature has no important pathological significance.

Continuous pain is abnormal.

A bloody flow lasting more than four or five days after labor, or recurring subsequently, or persistent sacral pain, should be reported to the physician.

Nurse's Record—For the first week or more after labor keep a concise daily record of the case, according to the form on the following pages. Begin each day's report upon a new page or folio. Keep it filled out to date in readiness for the doctor's examination.

CARE OF THE MOTHER.

General Rules—The patient should lie on the back for the first few hours after labor. Later the posture should be occasionally changed.

Sleep relieves the exhaustion following labor.

Rest and quiet are indispensable.

During the first week, as a rule, exclude visitors.

Give no medicine without instructions.

In case of excessive flowing, give the patient a half teaspoonful of fluid extract of ergot every half hour till the flooding is controlled; stimulate contractions of the womb by putting the child to the breast, and by manipulating the uterus as directed on page 10, and send at once for a physician.

Advise the doctor immediately of any important abnormal occurrence in childbed.

The nurse should sleep on a separate cot in the same room with the patient.

Cleanliness—Absolute cleanliness of the person, the clothing and the bedding of the patient is imperative.

A general bath may be given once in two or three days, or oftener, with a clean wash-cloth and warm water.

NURSE'S DAI

NAME OF PATIENT.....

....., 189....

Hour.	Pulse.	Temp.	Micturition.	Defecation.	DIET.	LOCHIA. Amount, Color, Odor, Clots.

LY RECORD.

DAY SINCE CONFINEMENT.....

BREASTS and NIPPLES.	CHILD. Pulse, Temp., Micturition, Defecation, Sleep.	REMARKS.

Replace the lochial guard with a fresh one every three to six hours during the first three days, and at all times often enough to prevent the slightest bad odor.

The external genitals and their immediate surroundings should be thoroughly cleansed with one of the antiseptic solutions when the vulvar dressing is changed. If the mercurial solutions irritate, a milder antiseptic must be chosen. A saturated, boiled solution of boric acid may answer. Permit no fetor.

Allow nothing to touch the genitals that has not first been sterilized.

Vaginal douches should not be used unless ordered.

Soiled lochial guards and all soiled linen should immediately be removed from the room.

The Diet, especially if the patient is much exhausted, or has taken an anesthetic, may be liquid or light solid food for the first day, *e. g.*, milk, gruels, beef essence, animal broths, dropped or soft-boiled eggs, oatmeal mush or wheaten grits, dry toast, and weak tea or cocoa. Thereafter, in the absence of exhaustion, fever, bad digestion, or loss of appetite, a moderately full diet may be allowed as a rule.

Care of the Breasts and Nipples—In simple engorgement of the breasts gentle massage with

oiled hands, rubbing from the base toward the nipple, is permissible if it relieves pain.

An inflamed breast must not be rubbed.

Support by means of a *firm* compression binder is useful in over-distension. A padding of cotton-wool should be used under the binder to distribute the pressure evenly over each breast. An opening is made in the center of each pad to prevent injurious pressure on the nipples.

The patient must take liquids sparingly while the breasts are engorged.

The nipples should be cleansed after each nursing, best with a weak antiseptic solution, *e. g.*, a saturated solution of boric acid in water, or the peroxid of hydrogen.

The nipples must be handled only with aseptic hands and must be protected against every possible septic contact.

The Bladder—The bladder should empty itself within six or eight hours after delivery, and every eight hours subsequently.

Note the amount of urine daily and the frequency of urination.

Retention of urine may sometimes be relieved by suprapubic pressure, hot fomentations to the vulva, the sound of running water, rectal injections of warm water, or, with the doctor's permission, by allowing the patient to sit upon

the bed-pan, or to get out of bed and use the commode for voiding the urine.

Do not use the catheter without consulting the attending physician.

The Bowels—The bowels should be opened on the second or third day and once daily thereafter.

This may usually be accomplished by an enema of a quart of warm water, or of one or two ounces of a saturated solution of Epsom salts, repeated as required. A rectal injection of two teaspoonfuls of clear glycerin previously warmed or a glycerin suppository may be used; or a simple laxative may be given by the mouth, *e. g.*, citrate of magnesium solution.

Duration of Lying-In—The patient should not sit up in bed for the first week except by order of the physician.

She should as a rule maintain a reclining posture on the bed or lounge for all or the greater part of the second week;

May in normal cases occupy her chair for the larger part of the day during the third week;

May have the liberty of her room during the fourth week;

May leave her room at the end of a month unless otherwise directed.

Use of the Catheter—The instrument for the

nurse's use should be a soft rubber, velvet-eyed catheter in good order.

Boil it for ten minutes just before using.

Cleanse the hands as directed on pp. 24, 25 before handling the sterilized catheter.

The patient lies on the back with the knees drawn apart.

Let the patient or an assistant retract the labia so as to fully expose the orifice of the urethra and hold them apart till the catheter is passed.

Cleanse the urethral orifice and the surrounding surfaces with one of the mercurial solutions and rinse with sterilized water.

Lubricate the catheter with vaselin recently sterilized by heating.

Pass it by the aid of the eye about one and a half inch, or until the urine begins to flow.

Collect the urine in a cup or small bowl.

Prevent entrance of urine into the vagina and its contact with genital wounds.

Cleanse the instrument carefully after using.

Repeat the evacuation of the bladder once in eight hours.

PREVENTION OF CHILDBED FEVER.

Childbed fever is caused by the invasion of the genital wounds by living microörganisms or germs.

The carriers of the disease germs are in practically all cases the hands of the doctor or the nurse, instruments, utensils or other appliances brought in contact with the genitals.

The disease germs are destructible by certain antiseptic agents.

Childbed fever is, therefore, a preventable disease.

Prevention depends upon keeping everything that comes in contact with the birth canal germ-free or aseptic by the faithful use of antiseptic agents, especially during the labor and for a week at least after delivery.

The following are the best germ-destroying or

ANTISEPTIC AGENTS.

Boiling or Steaming for ten minutes, or longer.

Dry Heat at 234° F. for ten minutes to two hours (baking in an oven).

Bichlorid of Mercury Solution—Bichlorid of mercury, eight grains, boiled water, one

quart. Add common salt, eight grains. (This is a deadly poison.)

BINIODID OF MERCURY SOLUTION—Biniodid of mercury, eight grains, iodid of potassium, eight grains, water, one quart. (Also poisonous.)

THE PEROXID OF HYDROGEN—15 volume solution—in full or half strength.

CHLORINATED SODA SOLUTION—Labarraque's Solution—of good quality, one ounce in ten ounces of water.

CARBOLIC ACID, one ounce, and glycerin, one ounce, in eighteen ounces of water; not so good as the preceding.

Choice of Antiseptics—For cloths, linen, hand-brushes and other utensils, any of these agents are suitable, except the chlorinated soda, which is destructive of the fabrics. Steaming or boiling is most reliable.

For the hands either the bichlorid or the biniodid of mercury or the chlorinated-soda solution should be used.

For metallic instruments boiling or steaming is best. A teaspoonful of washing soda to the pint of the water in which steel instruments are boiled prevents rusting.

How to Compute the Strength of Solutions—For making a solution of definite strength it will be convenient to remember that an ounce of water

contains approximately 500 minims, and that a strength of one grain to the ounce of water is 1 in 500; one grain in two ounces is 1 in 1000; one grain in four ounces is 1 in 2000, and so on. This, while not exact, is sufficiently so for practical purposes.

It will also be seen that five grains to the ounce makes a one per cent. solution, ten grains to the ounce a two per cent. solution, and so on. In case of liquid antiseptics minims are substituted for grains.

Nurse's Clothing—The nurse should wear wash-dresses. Her clothing should at all times be absolutely clean.

In hospitals special protection is afforded by wearing during the labor an operating gown fresh from the steam chamber.

Care of the Hands—The nurse should keep her hands scrupulously clean and the nails cut short.

She must cleanse her hands by one of the following methods immediately before they are to be used about the genitals of the obstetric patient.

a. USUAL METHOD.

1. Clean the nails dry.

2. Scrub the hands and forearms for five minutes with hot water, soap and a hand-brush

(sterilized by steaming), paying special attention to the nails and finger-tips.

3. Rinse in clean water.

4. Immerse in the biniodid or bichlorid solution for five minutes.

b. PERMANGANATE METHOD.

Steps 1, 2 and 3 as in foregoing method.

4. Immerse the hands and forearms for three minutes in a warm saturated solution of permanganate of potassium in boiled water.

5. Immerse in a warm saturated solution of oxalic acid in boiled water till the permanganate stain is discharged.

6. Rinse with sterilized water,

7. Hold for five minutes in a bichlorid or biniodid of mercury solution, 1–500.

The permanganate process is advised for sterilizing the hands after unusual septic exposure and whenever extra care is required.

Hold the hands for a moment again in the mercurial solution each time before touching the genitals.

After sterilizing refrain from wiping the hands and touch nothing that is not aseptic.

To keep the hands soft after the use of antiseptics, wash in plain hot water, rub well with glycerin and water, and wipe dry.

A pair of thin rubber gloves will frequently be found of service. They may be rendered sterile by boiling for ten minutes, while to completely sterilize the hands is a difficult and tedious process. The advantage of the gloves for numerous uses is obvious.

THE CHILD.

NATURAL HISTORY AND DEVELOPMENT.

Measurement—Average length, at birth, 20 inches.

Average gain in length first year, 8 inches.

Average gain in length second year, $3\frac{1}{2}$ inches.

Average gain in length third year, 3 inches.

Average gain in length fourth to sixteenth year, 2 to 3 inches yearly.

Weight—Average weight, at birth, 7 to $7\frac{1}{4}$ lbs.

Gain for the first five months, 5 ounces or more weekly.

Weight at the end of one year, two or three times the birth weight.

Thereafter the annual gain is about 5 lbs. until puberty.

Pulse-rate, at birth, 120 to 140.

One year, 120;

One to two years, 120 to 110;

Two to six years, 110 to 100;

Six to ten years, 100 to 88;

Ten to fourteen years, 88 to 72.

The pulse of the newborn infant is frequently irregular while the child is awake; it is best counted during sleep.

Respiration, at birth, 45 per minute;

One year, 30 per minute;

Two to five years, 30 to 20 per minute.

Temperature in the rectum first week, 99.6° F.;

First week to fifth month, 98½° to 99° F.

During the first five months the temperature is subject to fluctuations of from 1° to 3° F.

By the fifth month the daily temperature-range closely approximates the adult standard.

The axillary temperature is one degree or more lower than the rectal.

Development—The caput succedaneum disappears within about twenty-four hours. The head resumes its shape in two or three weeks.

Second month, generally, the eyes and hair begin to change color.

Third month, the child begins to use its hands for grasping; holds up its head.

Fourth month, begins to know faces and to sit upright.

Fifth month, saliva begins to be secreted.

Sixth month, sits erect easily.

Seventh month, first dentition begins.

Eighth month, begins to creep.

Ten to sixteen months, begins to talk.

Twelve to eighteen months, begins to walk.

The second year, large fontanelle closes.

The rate of development is more rapid in girls than in boys.

First Dentition—The first or milk teeth are twenty in number.

The first dentition begins at about the seventh month.

The order of eruption is generally as follows, but is subject to variations:

Two lower central incisors, seven months.

Four upper incisors, eight to ten months.

Four first molars and inferior lateral incisors, twelve to fifteen months.

Four canines, eighteen to twenty-four months.

Four remaining molars, twenty to thirty months.

Second Dentition—The second or permanent teeth are thirty-two in number.

The second dentition usually begins at the sixth year. The average times of eruption are:

Four first molars, sixth year.

Four middle incissors, seventh year.

Four lateral incisors, eighth year.

Four first bicuspids, ninth year.

Four second bicuspids, tenth year.

Four canines, eleventh year.

Four second molars, twelfth year.

Third molars, twenty-first year.

CARE OF THE CHILD.

On birth cleanse the face and especially the eyes, the latter preferably with the biniodid or bichlorid of mercury solution; dry the eyes thoroughly.

Rub the skin with sweet oil or with vaselin to facilitate the subsequent removal of the cheesy matter.

Wrap the child in flannel and keep it warm.

Within a few hours after birth inject a tablespoonful of warm water into the rectum to provoke movement of the bowels, if necessary in order to make sure that the rectum is pervious.

Bathing—Feeble children should not be bathed for several hours, and in some cases, days, after birth. Rub daily with sweet oil instead.

A vigorous infant may receive its first bath shortly after birth.

Wet the head first, then immerse the body, supporting the head above the water with the hand during the bath.

The bath tin may be covered with flannel or the child be wrapped in flannel if necessary to prevent shock or fright on immersion.

The best time for the bath is a morning hour midway between feedings.

Use an infant's bath-tub. Place it near the heater, or where the temperature is about 75° F.

Temperature of the water 98° F. by the bath thermometer.

Duration of bath should not exceed five minutes.

A soft, fresh-boiled wash-rag is cleaner than a sea sponge.

The *finest quality* of Castile or some equally bland soap is best. It should be used sparingly.

Cleanse the scalp thoroughly.

Dry the child rapidly by enveloping in the towel with but little friction. During the first week or two the skin is irritable and is easily injured by chafing.

In older infants moderately brisk friction with the bare hand may be used after drying the skin, to secure full reaction.

Don't expose the newborn child to the slightest chilling.

Infant powder is usually unnecessary.

In case of irritation in the folds of the skin, finely powdered talc, or oxid of zinc and lycopodium in equal parts, may be used as infant powder.

Repeat the bathing daily in warm weather, twice or thrice weekly in cold, for the first two years of age.

Cleans soiled portions of body as often as soiled.

The temperature of the bath may be gradually reduced to 90° F. by the age of six months if the child is robust.

After three years sponging may be substituted for immersion. Temperature of bath, 85° F. in Summer, 90° F. in Winter; at the age of approaching puberty, 70° to 75° F.

In feeble children the addition of salt to the bath water, to the strength of sea water, helps to stimulate the skin and to prevent chilling.

Never bathe the child when it is in a perspiration or is chilled.

Navel Dressing—Wrap the stump of the navel-cord with dry absorbent cotton impregnated with boric acid, or bismuth powder, and lay to the left side. Hold the dressing in place with a loose belly-binder of thin, soft flannel. Discard the binder after the navel wound heals.

Dry the cord and re-dress it in similar manner after each bath; or, after the first bath, rubbing the child with sweet oil may be substituted for further bathing till the cord falls. This usually happens about the fifth day. Keep the navel wound surgically clean.

If the cord develops a fetid odor immediately notify the doctor.

Clothing—The following is a simple and convenient dress for the first half-year:

1. The usual napkin of cotton or linen diaper fastened with a single safety-pin, the only one needed in the child's clothing.

2. A soft, thin flannel belly-band four inches wide encircling the body and overlapping four inches and fastened in front with tapes. A knit wool band which can be had ready-made may be used.

3. A flannel undershirt of the softest material, without sleeves and opening in front.

4. A fine flannel dress with high neck and long sleeves, cut *à la princesse*, opening in front and about twenty-five inches in length.

5. A muslin slip of similar pattern to the flannel dress.

6. Woolen socks reaching to the knees.

All clothing, including the belly-band, should be loose enough to easily admit two or three fingers underneath it.

No garment should be worn till properly laundered.

An entire change of clothing is to be made at night. The day dresses are replaced with a single flannel or canton flannel slip having a drawing string at the bottom.

In all seasons, children of whatever age should

wear woolen garments next the skin, and the extremities should be as warmly covered as other portions of the body are.

The dresses are to be shortened when the child begins to creep, or earlier.

Shoes should be worn from the time the child begins to walk. They should be firm enough for the necessary protection and support, and large enough to provide for the full expansion of the feet.

The Napkin must be removed immediately when wet or soiled and replaced with a clean one, fresh laundered. Bathe the soiled portions of the body with each change, using plain warm water without soap.

An excellent material for napkins is a soft cheese cloth which has been boiled and dried. It should be folded to several thicknesses. Burn after using.

Nursing—No artificial food must be fed to the newborn infant unless ordered. A teaspoonful of warm water, plain or slightly sweetened with milk sugar, may be given now and then if required. The use of catnip, anise, and all similar herb teas is to be condemned.

Put the child to the breast after the mother has rested, six or eight hours after birth,

Ten or fifteen minutes should suffice for each nursing.

Let it nurse once in four hours until the milk comes, then once in two hours. Lengthen one interval in the night to six hours. Both breasts may be nursed at each nursing.

Gradually increase the intervals to about three hours by the age of three months.

The harm done by irregular nursing is a two-fold one:

Digestion is hindered by feeding one meal before the preceding meal is disposed of;

The mother's milk becomes too rich with too frequent nursing and too thin when the intervals are too long.

The breast milk alone is rarely sufficient for the child's nutrition after six or eight months. If needed one artificial feeding daily may then be added to the nursing and the number of hand feedings be gradually increased till the child is wholly weaned. The best evidence of imperfect nutrition is failure of the normal weekly gain in weight.

The usual time for weaning is when the child has eight teeth, or about the twelfth month.

Sleep—The infant should sleep by itself in a crib or cradle.

During the first two or three months of its

life the child requires eighteen or twenty hours, at two years of age, about fourteen, and at three years, eleven hours of sleep out of the twenty-four.

The Bowels for the first two years should move twice, not more than four times daily.

A small soap, cacao butter or a glycerin suppository, or the injection of a teaspoonful of warm glycerin into the rectum may be used as required in case of constipation.

Five to ten grains of manna or of phosphate of sodium or both may be added to each feeding or be given in water as a laxative.

Phillips' milk of magnesia is an excellent aperient for infants. The dose is from a half to a teaspoonful or more.

Warmth to the abdomen and gentle massage are harmless and useful remedies for colic.

The Bladder is emptied from five to ten times daily during the first months.

The urine is at first very limpid and of a low specific gravity. The daily amount in the first year is from eight to twelve ounces.

Useful Hints—Premature and feeble children require special care to keep them constantly warm.

Should the child's breasts become swollen no treatment as a rule is required. On no

account should the nurse manipulate or poultice them.

Notify the doctor of the slightest discharge from the eyes.

The temperature of the child, taken in the rectum, may afford important information.

See that the child does not lie too much in one position.

The infant may be taken out of doors for a few hours daily in suitable weather, after the first month in Summer, the fourth in Winter.

The child's habits will be in great part what the nurse makes them. Enforce system.

Care of the Teeth—If at any time the teeth, even of the first set, show signs of decay they should be placed in the care of a competent dentist.

It is well in any event to submit the teeth to the systematic inspection of the dentist two or three times a year.

An examination should be made by the mother or the nursery maid as a part of the child's daily toilet.

If tartar accumulates it should be removed by rubbing the teeth with a soft moist muslin rag, or with a wooden toothpick frayed out at the end. Care must be used not to injure the gums.

The spaces between the teeth may be cleansed

daily by drawing a soft silk thread through them.

Hygiene of the Nursery—The nursery should be a large, well ventilated, dry room above the ground floor and with a sunny exposure. Its furniture should be simple and such as may easily be kept clean.

The walls and the wood-work may be painted or varnished, the floor may best be of hard wood with rugs instead of carpets.

The plumbing, if any be allowed, must be of the best sanitary construction and the drains should be flushed several times daily.

The temperature of the room may be 68° to 70° F., day and night.

Common Ills and Accidents During Infancy—Restlessness and crying are most frequently signs of disease, sometimes of hunger.

Eructation of food immediately after feeding is the overflow of a too full stomach.

Eructations some time after feeding are due to indigestion.

Teething is a natural process, and not a disease; is seldom or never a cause of disease.

The only reliable sign of worms is the passage of worms or of their eggs.

Sleeplessness is a common result of indigestion.

Convulsions are most frequently due to indi-

gestion. While waiting for the doctor put the child in a warm bath at 105° F. for five minutes and move its bowels freely by rectal injections of warm water.

ARTIFICIAL FEEDING—DIETARY OF INFANCY AND EARLY CHILDHOOD.

FIRST TWELVE MONTHS.

The natural food of the infant for the greater part of the first year is milk.

The proper substitute food for the first eight or ten months of life is milk.

Farinaceous foods and their various modifications are unnatural and generally unsuitable for at least the first half year.

The best practicable substitute for human milk is modified cow's milk.

Of the milk mixtures given below the first most nearly resembles breast milk.

1. ROTCH-MEIGS MIXTURE.

Cow's milk—mixed dairy milk—	2	ounces.*
Cream, containing 20% of fat,	3	" †
Water, previously boiled,	10	"
Milk sugar (perfectly pure),	6¾	drachms.‡
Lime-water,	1	ounce.§

* Use a measuring-glass, to be had at the drug stores.

† Best that obtained by the centrifugal machine since it may be had fresh.

‡ Have powders each containing 6¾ drachms of milk sugar prepared by your druggist, or use a measure made to hold the required quantity.

§ The addition of the lime-water is essential since cow's milk is acid, human milk alkaline.

The following preparations are sometimes well borne by robust infants. Usually mixtures 2 and 3 require dilution during the first two or three months, by the addition of three to five ounces more water than the formulas prescribe.

2. PLAIN MILK MIXTURE.

Cow's milk—mixed dairy milk—	10 ounces.
Water, previously boiled,	5 "
Milk sugar,	6¾ drachms.
Common salt,	8 grains.
Lime-water,	1 ounce.

3. CONDENSED MILK MIXTURE.

Canned condensed milk,	1 ounce.
Boiled water,	9 ounces.
Cream,	10 drachms.
Salt,	8 grains.

A whey and cream mixture may be used for a time in case of feeble digestion when under ordinary feeding undigested curds are passed in the stools.

WHEY AND CREAM MIXTURE.

Whey,	4 ounces.
Cream,	2 "
Boiled water,	4 "
Lime-water,	4 drachms.
Milk sugar,	4 "
Salt,	5 grains.

To prepare the whey, add to a pint of fresh

milk at the temperature of 100° F. a grain or two of pepsin dissolved in a teaspoonful of tepid water. After the curd separates strain off the whey.

Pasteurization—Either of the foregoing mixtures should be prepared, bottled and Pasteurized, soon after the milk is delivered, in quantity sufficient for the day's use.

Pasteurize as follows: Fill ten clean bottles* to the shoulders, each holding enough for one feeding. Plug the mouths lightly with rubber stoppers. Rubber stoppers may be had specially made for the purpose at the druggists.

Stand the bottles in a kettle and cover to the shoulders with water. Heat to 167° F. for twenty minutes. Push the stoppers in firmly. Chill the bottles promptly and keep on ice.

The Pasteurizing may be more conveniently accomplished by steaming the bottles in the open chamber of an Arnold steam sterilizer. With the cover left off the milk mixture reaches the temperature of 167° F. in about one hour. An exposure for an hour and twenty minutes in the steam chamber is therefore required to complete the process.

The same object may be reached by rapidly

* Or as many as the number of daily feedings.

heating the milk nearly or quite to the boiling point and then promptly chilling.

Feeding—Warm the bottle to 95° F. before feeding, then remove the stopper and slip a clean rubber nipple over the neck of the bottle.

Let the child nurse directly from the bottle in which the food was prepared.

Cleanse the nipple inside and out after each feeding and the bottle in like manner.

Boil the nipple for ten minutes before using and the bottles before refilling.

AMOUNT AND FREQUENCY OF FEEDING—RULES FOR GENERAL GUIDANCE.

AGE.	INTERVALS OF FEEDING.*	AMOUNT AT EACH FEEDING.†	NUMBER OF DAILY FEEDINGS.	AVERAGE DAILY AMOUNT.
First day.	2 hours.	1 drachm.	10	10 drachms.
Second day.	2 hours.	½ ounce.	10	5 ounces.
Third day.	2 hours.	1 ounce.	10	10 ounces.
Second week.	2 hours.	1½ ounce.	10	15 ounces.
Six weeks.	2½ hours.	2½ ounces.	8	20 ounces.
Three months.	3 hours.	3½ ounces.	7	24½ ounces.
Four months.	3 hours.	4½ ounces.	6	27 ounces.
Five months.	3 hours.	5 ounces.	6	30 ounces.
Six months.	3 hours.	5½ ounces.	6	33 ounces.
Seven months.	3 hours.	5¾ ounces.	6	34½ ounces.
Eight months.	3 hours.	6¼ ounces.	6	37½ ounces.
Nine months.	3 hours.	6¾ ounces.	6	40½ ounces.
Ten months.	3½ hours.	8½ ounces.	5	42½ ounces.
Eleven months.	3½ hours.	8¾ ounces.	5	43¾ ounces.
Twelve months.	3½ hours.	9 ounces.	5	45 ounces.

* Lengthen one interval in the night to six hours.

† By measuring-glass.

Small and feeble children require to be fed more frequently and in smaller quantities, large and robust children less frequently and in larger quantities than the foregoing table prescribes. The daily allowance needed must be determined for the individual case by trial.

The stomach capacity at birth is approximately $\frac{1}{100}$ the weight of the child's body. It averages about one ounce at birth and increases by a drachm and a half to two drachms per week during the first six months. After that the rate of increase is somewhat smaller.

Take the child's weight once a week as a guide to the feeding. A well nourished child gains five ounces or more weekly during the first five months. For the remainder of the first year, the gain is about a pound a month. The birth weight is doubled at four months and trebled at twelve.

Peptonized Milk may sometimes be used as a temporary expedient for feeding infants of very feeble digestion.

Peptonize the contents of each bottle shortly before feeding, as follows: For each ounce of the mixture add extract of pancreas* (Fairchild), one-fifth grain; bicarbonate of sodium, three-

* To be had of the druggists.

fifths grain,† and shake till dissolved.‡ Stand the bottle in water at the temperature of 105° F. for fifteen minutes. If the milk becomes too bitter, reduce the time to ten or even to five minutes.

Partial Peptonizing—Either of the food mixtures may be partially peptonized for a few weeks if not well borne without predigestion. For this purpose add the extract of pancreas and the bicarbonate of sodium to the contents of the nursing-bottle *immediately* before feeding, and in the proportions above stated. A partial digestion of the food thus takes place in the bottle while the child is nursing it.

The peptonizing when no longer required should be discontinued *gradually* by daily diminishing the quantity of the peptonizing powder.

Farinaceous Admixtures—As a rule modified cow's milk should be the sole food of the child till the end of the tenth month or longer. After the tenth month some farinaceous material may in most cases be added to the food as follows:

BREAD JELLY—Soak four ounces of stale wheat-meal (Graham) bread in cold water for six or eight hours. Then squeeze the water out

† Omit the lime water, when bicarbonate of sodium (baking soda) is used.

‡ Fairchild's peptonizing tubes will be found convenient. They contain the extract of pancreas and the soda mixed in the required proportions.

of it. Boil the pulp for one and a half hours in enough fresh water to make a thick gruel. Rub through a fine sieve and allow to stand. Mix while fresh one part of the jelly thus formed with from eight to sixteen parts of either of the above-given milk mixtures before sterilizing.

BARLEY OR OATMEAL GRUEL—Boil for at least half an hour a tablespoonful of barley or oatmeal in one pint of water. Occasionally add water to maintain the original pint. Strain and add salt to taste. Make fresh daily. Combine with either of the milk mixtures in the proportion of one part of the gruel to from four to eight of the mixture before sterilizing.

Barley gruel is better if there be looseness of the bowels, oatmeal in case of constipation.

Undiluted Milk—Undiluted cow's milk mixed in the proportions given with any of the above-named farinaceous preparations, and sterilized, is usually well borne by healthy children after the tenth or twelfth month.

Milk Laboratories—A recent advance in infant feeding is the milk laboratory.* The milk laboratory is to the nursery what the pharmacy is to the sick-room. The physician writes his prescription for the infant's food very much as he

* Milk laboratories have within a few years been established in some of our larger cities.

does for medicine. The laboratory fills the prescription and dispenses the product for consumption.

Cow's milk contains approximately 4 per cent. of albuminoids, 4 of fat, and 4 of sugar. In human milk the percentages are: albuminoids, 1 to 2; fat, 3 to 4; sugar, 7.

At the milk laboratory cow's milk is resolved into its principal nutritive constituents and these are re-combined in such proportions as the physician may direct. The proportions may conform to those of breast milk or be still further modified if needed to suit the individual case. The materials are purified and the product Pasteurized.

If owing to its greater coagulability the animal casein is not well digested in the percentage normal to human milk the difficulty is overcome by a further reduction of this ingredient or by partial predigestion.

Sample Food Prescriptions—1. For a healthy and fully developed infant one week old:

Albuminoids,	.75*
Fat,	2.00
Milk sugar,	5.00
Lime water,	5.00

Sterilize at 167° F.

Send 10 bottles, each 1½ ounce.

* The numerals in the formula represent percentages.

Constipation is generally relieved by raising the percentage of fat, which, however, should not usually exceed 5 per cent.

2. For a child three months old with very weak albuminoid digestion:

Albuminoids,	.20
Fat,	4.00
Milk sugar,	7.00
Lime water,	5.00

It is to be assumed that the proportion of albuminoids needs reduction toward the minimum, so long as undigested curds appear in the stools. Partial peptonizing may in rare cases be also required. The albuminoids are again to be raised to the norm as fast as the child's digestive powers will permit. Yet it is better, generally, to add too little than too much of this ingredient.

3. For an infant three months of age with feeble sugar digestion:

Albuminoids,	1.50
Fat,	3.00
Milk sugar,	2.20
Lime water,	5.00

4. For a child three months old, with weak fat digestion:

Albuminoids,	1.50
Fat,	.10
Milk sugar,	6.00
Lime water,	5.00

The last three prescriptions are intended only to give a general idea of the method of treating impaired digestion. The degree and character of the digestive disorder, the appearance of the stools, and the weight of the child weekly serve to point out the modifications required in the individual case.

The table on the following page shows approximately the stomach capacity of the child and the percentage of albuminoids, fat and sugar required at different periods of the first year for healthy infants, substantially as determined by the experience of the milk laboratories of New York and Boston.

Age.	Stomach Capacity.	Albuminoids.	Fat.	Sugar.	Lime-Water.
Premature infants.	2 to 6 drachms.	.20 to .75	1.00 to 1.50	3.00 to 5.00	5.00
Full term healthy infants.					
1 week	1 ounce.	.75	2.00	5.00	5.00
2 weeks	1½ ounce.	1.00	2.50	6.50	5.00
3 weeks	2 ounces.	1.00	3.00	6.50	5.00
1 month	2½ ounces.	1.00	3.50	7.00	5.00
2 months	3¼ ounces.	1.25	4.00	7.00	5.00
3 months	4 ounces.	1.50	4.00	7.00	5.00
4 months	4½ ounces.	1.75	4.00	7.00	5.00
5 months	5 ounces.	2.00	4.00	7.00	5.00
6 months	5½ ounces.	2.25	4.00	7.00	5.00
7 months	6 ounces.	2.50	4.00	7.00	5.00
8 months	6½ ounces.	2.75	4.00	7.00	5.00
9 months	7 ounces.	3.00	4.00	6.50	5.00
10 months	7½ ounces.	3.50	4.00	5.50	5.00
11 months	8 ounces.	Perhaps 4.00	some 4.00	cereal 4.00	jelly. 5.00
12 months	8½ ounces.	Cow's milk.		. ....	.....

TWELVE TO EIGHTEEN MONTHS.

In the beginning of the second year the food should consist principally of whole milk, Pasteurized, with barley or oatmeal gruel or bread jelly in the proportions above given.

Two or three ounces of raw beef juice moderately seasoned may be given daily either mixed with the milk or separately. It should be prepared at least twice a day.

The simpler kinds of food requiring mastication may be added after the child has sixteen teeth, such as junket, oatmeal and milk, or wheaten grits well cooked, or stale bread and milk.

Scraped beef or soft-boiled eggs may be allowed two or three times weekly.

Four or five feedings are given daily.

EIGHTEEN MONTHS TO TWO YEARS.

If the child is hearty, a little fine cut meat may be given with the midday meal, such as tender beef, lamb or chicken. This, however, is not essential. Chicken or mutton broth may be added.

Milk should be the basis of the feeding till the child has all its teeth, and may constitute a part of it for several years longer. Milk, beef juice and the farinaceous preparations above men-

tioned afford a sufficient dietary for the entire period of infancy.

Four meals a day generally suffice.

The ready made infant foods of the shops are not to be recommended.

TWO TO THREE YEARS.

The child may sit at the table. Add to the dietary fine cut beefsteak, roast beef, chicken, turkey, fresh fish, mashed potato, bread and butter, light puddings, sound, ripe fruits, in moderate quantity, especially freshly cooked fruits.

THREE TO FIVE YEARS.

Add omelet, oysters, lamb chops, mutton, chicken fricassee, beefsteak, tomatoes, peas, beans; occasionally, stewed fruits, in season. Forbid tea, coffee, wine and beer.

MANAGEMENT OF THE BIRTH IN THE ABSENCE OF THE PHYSICIAN.

INSTRUCTIONS FOR THE NURSE.

When the head is apparently about to be born, in the absence of the doctor, place the patient upon her left side with her knees drawn up and her back near the edge of the bed.

Scrupulously cleanse your hands and arms as directed on pages 24 and 25.

Cleanse the patient's external genitals as in other cases.

Expose and watch the surface of the pelvic floor—the space immediately about the genitals and anus.

For several minutes, sometimes a half-hour or more, before the head is born the pelvic floor bulges outward, at least during the pains.

Internal examinations by the nurse are not as a rule advisable.

As soon as the head can be seen at the vulvar fissure place the fingers against it and hold it back during the pains enough to permit only a very gradual descent.

This gives time for the vaginal orifice to stretch and thus tends to save tearing.

In first labors a half hour or more will be required from the time the pelvic floor begins to bulge.

In subsequent labors fifteen or twenty minutes will usually suffice.

If the head is being driven down too forcibly ask the patient to avoid straining by breathing rapidly during the pains.

On birth of the head pass the finger within the passages to learn if the cord is wound about the neck.

If it is pull the loop or loops of cord carefully down over the head.

See that the child's face does not lie in a pool of liquid.

Immediately on birth of the head place one hand flat upon the abdomen over the uterus. "Watch" the uterus with the hand upon the abdomen till child and placenta are delivered and for a half-hour longer, till the uterus can be felt to contract firmly.

On delivery of the trunk turn the patient upon her back and teach a bystander to watch the uterus temporarily.

Make the child cry out by slapping its buttocks with the hand or with a wet towel.

If the child does not breathe let an assistant hold its body in a basin of water at a tempera-

ture of 98° F., with the head partially bent backward, keeping the mouth just above the water.

Cleanse the face and spread a clean, coarse towel over it.

Press one hand firmly over the child's stomach, close the nostrils with the other.

Applying the mouth over the child's mouth, gently force air into its lungs through the intervening towel.

Repeat twenty times per minute.

Continue artificial respiration till the child breathes regularly.

Maintain the temperature of the water, in which the child is immersed, at 98° F.

Tie the cord only after it has nearly or quite ceased to beat at a point near the vulva.

Tie firmly an inch and a half from the navel.

Tie again an inch or two farther away.

Cut between the ligatures, near the first.

Press the end of the stump repeatedly with a fresh towel, to see if it bleeds.

Examine it occasionally for an hour or two, and if it oozes tie again just behind the first ligature.

If necessary, compel the uterus to contract, by friction or pressure, as directed on page 10.

Don't pull upon the cord.

When the placenta is expelled, twist the mem-

branes into a rope by turning the placenta over and over till the membranes all come away.

Watch the uterus for at least a half-hour longer, to make sure that it contracts firmly.

GLOSSARY.

ABDOMEN, the belly; the cavity of the body bounded above by the diaphragm and below by the pelvic entrance.

ANESTHETIC, an agent for producing insensibility to pain.

ANTISEPTIC, preventive of septic poisoning or infection.

ASEPTIC, free from septic poisoning and the germs which cause it.

CAPUT SUCCEDANEUM, the usual swelling observed on the presenting part of the child's head.

CATHETER, a tubular instrument used for drawing off the urine from the bladder.

CHILDHOOD, in the restricted sense of the term is the period of life extending from infancy to puberty, approximately from two and a half to fifteen years of age.

DEFECATION, the act of evacuating the bowels.

DOUCHE, a stream or jet of fluid projected against some part of the body for cleansing it or for remedial purposes.

DRACHM, 60 grains, $\frac{1}{8}$ ounce; in fluid measure, about a teaspoonful.

FETUS, the unborn child.

FUNDUS OF THE UTERUS, the upper end of the uterus.

GENITALS, the sexual organs.

GRAIN, the smallest unit of weight; in Troy or apothecaries' weight, $\frac{1}{480}$ part of an ounce. The ounce avoirdupois is equal to $437\frac{1}{2}$ grains.

HEMORRHAGE, bleeding.

INFANCY, the period of life from birth to the completion of the first dentition, two or two and a half years.

LABIA, lips; as applied to the external sexual organs, essentially the lateral halves.

LIGATURE, a thread or cord of silk or other material tied around a part for the purpose of constricting it.

LOCHIA, the discharge which takes place from the birth-canal for two to four weeks after labor.

LOCHIAL GUARD, the napkin or other dressing worn over the external genitals after labor to receive the lochial discharge.

MECONIUM, the dark greenish matter contained in the intestinal canal of the newborn child.

MICTURITION, the act of voiding urine.

NAVEL, the point near the center of the abdominal

wall, at which the umbilical cord was attached during fetal life.

NAVEL-CORD, or umbilical cord, the cord which connects the fetus with the placenta. It carries the vessels which carry blood to and from the fetus.

OUNCE, 480 grains, 8 drachms, $\frac{1}{12}$ pound Troy or apothecaries' weight; 437½ grains, $\frac{1}{16}$ pound, avoirdupois; in fluid measure, $\frac{1}{16}$ pint; about two tablespoonfuls.

PASTEURIZE, to partially sterilize by exposure to a temperature of 167° F. for twenty minutes.

PELVIS, the bony basin at the lower extremity of the trunk.

PEPTONIZE, to convert into peptone; to partially digest.

PERINEUM, the body of muscular and other structures between the lower end of the rectum and the vagina.

PLACENTA, the afterbirth.

PUBES, the prominent, central portion of the pelvis in front.

PUERPERAL PERIOD, the period of about six weeks following labor.

RECTAL, pertaining to the rectum.

RECTUM, the lower or pelvic portion of the large bowel.

RETENTION OF URINE, excessive accumulation of urine in the bladder from inability to pass it.

SATURATED SOLUTION, a solution as strong as it can be made.

SEPSIS, a local affection of the tissues or a general affection of the system caused, directly or indirectly, by the presence of certain species of germs ; a kind of blood-poisoning.

SEPTIC, pertaining to sepsis or its causes; affected with sepsis.

STERILIZE, to make germ-free.

SUPRAPUBIC, pertaining to that part of the abdominal wall immediately above the pubes.

SUTURE, a thread of silk or other material for sewing together the lips of a wound.

UMBILICUS, the navel.

URETHRA, the canal through which the urine is discharged from the bladder, about one and three-fourths inch in length.

UTERUS, the womb.

VAGINA, the canal leading from the external sexual organs to the uterus.

VULVA, essentially the external sexual organs of the female.